

8.4: Discussion

Discussion

Write a minimum one-page (12 font, single spaced) discussion on the experiment conducted this week. Address **at least one question in each category** as fully as possible integrating the collected data, providing explanations for the observed trends, and evaluating whether your original assumptions about the experiment were validated by the results. **The assignment will be graded on completeness, clarity of the explanations and the meaningful integration of the collected and calculated data.** Correct grammar and appropriate format for the chemical formulae and chemical reactions is expected.

1. (Existing knowledge, research, and views) Define intermolecular forces and describe what they represent.
2. (Experiment design) Propose a practical laboratory method for determining the polarity of a molecule. Describe the protocol and the required materials.
3. (Analysis) Describe how you would determine if some of the herb/flower interacted with the oil or water fraction. Provide observations from your experiment that support your method.
4. (Analysis) Describe the odor of your water and oil fraction. Describe the similarities and differences between them and provide an explanation for them.
5. (Analysis) Describe what happened when you placed the whole herb/flower in the water and oil fractions. Compare the observations to those from the chopped/ crushed herbs.
6. (Analysis) Propose a method for determining the polarity of a molecule using the structure of the molecule. Include the structure of the compound to support your reasoning.
7. (Existing knowledge, research, and views) Look up the structure of the compound that is responsible for the scent of your herb. Describe how the structure of the compound affects the odor of the water and oil fractions.
8. (Experiment design) Propose at least one method to successfully separate oil and water.
9. (Experiment design) Propose at least one delicious combination for infused water and one for infused oil.
10. (Assumptions) Describe at least one assumption that is made when a compound is classified as water-soluble.
11. (Assumptions) Describe at least one assumption that is made when a compound is classified as soluble in oil.
12. (Analysis) Describe when, if ever a compound can be soluble in both water and oil. Provide a supported argument for your choice.

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